REMARKS

Claims 1 through 17 are currently pending in the application.

Claims 9 through 11 are withdrawn from consideration as being directed to a non-elected invention. Claims 1 through 8 and 12 through 17 are rejected.

This amendment is in response to the Office Action of May 13, 2004.

Preliminary Amendment

Applicant notes the filing of a Preliminary Amendment on April 12, 2004, which filing was not acknowledged in the outstanding Office Action. Should the Preliminary Amendment have failed to have been entered in the Office file, Applicant will provide a true copy to the Examiner.

Election/Restriction

Applicant hereby affirms the election to prosecute the invention of Group I, claims 1 through 8 and 12 through 17 without traverse of the Restriction Requirement.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on Loper (U.S. Patent 5,607,601)

Claims 1 through 8 and 12 through 17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Loper (U.S. Patent 5,607,601).

Applicant asserts that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Brothers v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicant has amended the claimed invention to clearly distinguish over the cited prior art.

Turning to the cited prior art, the Loper et al. reference describes a laser assisted semiconductor etching process using a krypton fluoride excimer laser to excite a carbonyl

dichloride COCL₂ precursor gas which disposes into carbon monoxide and atomic chlorine which bonds to surface layer materials of semiconductor devices for the selective etching thereof. The surface layer material being Cu, Al, amphorous silicon, copper indium diselenide, copper indium gallium diselenide and other materials useful in the manufacture of semiconductor devices and solar cells. The Loper et al. reference does not describe a ball grid array semiconductor device having a substrate of semiconductor wafer material having a mask formed thereon having a portion removed using a laser leaving a roughened surface.

Applicant asserts that the Loper et al. reference does not and cannot anticipate the presently claimed inventions of presently amended independent claims 1, 8, and 12 under 35 U.S.C. § 102 because the Loper et al. reference does not identically describe each and every element of the presently claimed inventions in as complete detail as in contained in the claims. For instance, the Loper et al. reference does not describe whatsoever the elements of the presently claimed inventions of presently amended independent claims 1, 7, and 12 calling for "a substrate of semiconductive wafer material having a surface", "resist on at least a portion of the surface of the substrate of semiconductive wafer material having a portion thereof removed by: and etching the resist from the surface of the substrate using a laser forming a roughened surface on the surface of the substrate", "roughening the surface of the substrate using a laser to remove material from the surface of the substrate", and "resist located on at least a portion of the surface; and having a portion thereof removed by etching the resist from the at least a portion of the surface of the substrate using a laser forming a roughened surface on the surface of the substrate of semiconductive material". At best, the Loper et al. reference describes the etching of a filim from an amorphous substrate of silicon, not a semiconductor material wafer for a semiconductor device. Such is not the presently claimed invention. Therefore, presently amended independent claims 1, 7, and 12 are allowable as well as the dependent claims 2 through 5, 8, and 13 through 17 therefrom respectively.

Applicant submits that claims 1 through 8 and 12 through 17 are clearly allowable over the cited prior art.

Applicant requests the allowance of claims 1 through 8 and 12 through 17 and the case passed for issue.

Respectfully submitted,

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